

The Maryland Healthcare Commission
Health Information Organization Research
Virginia - MedVirginia
February , 2009

Section		Requirement	Definitions	Virginia - MedVirginia
Vision	I.	Vision	Clear description of how to respond the unique needs an opportunities of HIE in state	
	A.	Mission		The mission of MedVirginia is to organize, coordinate and serve provider interests in health care information technology by providing a system for community-wide clinical data and information exchange that enables and supports improved business and clinical transactions.
	B.	Principles from Appendix B		
	C.	Interoperability		Focus on servicing central Virginia and connecting with NHIN, Department of Defense and SSA
	D.	Quality of care		
Strategy and Planning	II.	Financial Model and Sustainability	Economic Analysis of cost and benefit for each phase of implementation	Initial investors in MedVirginia are CenVaNet, a leading hospital and physician owned network based in Richmond, VA, and MedAtlantic, an affiliate of the Virginia Urology Center.
	A.	Financially sustainable		CenVaNet - Central Virginia health network is another line of business they have and is a Care Management Organization
	A1	Transaction fees		

Section		Requirement	Definitions	Virginia - MedVirginia
	A2	Subscription fees		Additional services are available on a subscription basis, including electronic health records, electronic prescribing, integration of practice notes and integration with practice management systems.
	A3	Membership fees		
	A4	Hospital funding		Provider owned by hospitals - central non profit hospitals and central Virginia Health Network - began as a PHO but in 2000 decided to do Health IT. Subscription fees paid by hospitals on an annual basis.
	A5	State Funding		Free clinics automated using Health IT funds from the Governor
	A6	Federal Funding		NHIN Contract - just received another one year option on funding
	A7	Health Plan funding		
	A8	Physician funding		No cost to providers
	A9	Philanthropic funding		
	B.	Budget		They are a private company and won't release any financial information.
	B1	capital		
	B2	operating costs		
	B2-1	Salaries		
	B2-2	Benefits		
	B2-3	Office expense		
	B2-4	Rent		
	B2-5	Utilities		
	B2-6	Software purchase and maintenance		

Section		Requirement	Definitions	Virginia - MedVirginia
	B2-7	Hardware purchase and maintenance		
	B2-8	Taxes		
	B2-9	Cyber Liability Insurance		
	B3	cash flow		
	B4	break even analysis		They are profitable and have calculated their break even
	C.	Community Benefit		
	D.	Benefit Realization		
	D1	ROI - financial measurement		
	D2	ROI - quality measurement		
	D3	ROI - System use measurement		
	D3-1	how many users		
	D3-2	what do they access		
Strategy and Planning	III.	Governance Framework	A multi-stakeholder approach that represents the needs of the community and all stakeholders	Established in 2000
	A.	Plan for engaging stakeholders		They engage the provider community as that is who they serve. Consumers are in the planning phase.
	B.	Ownership model: Public-Private Partnership		There is an office of Health IT under the Governors Office
	C.	Profit Status: Not-for-profit		Virginia Limited Liability Company - heritage is non for profit - most physicians are barely breaking even.
	D.	Articles of Governance		

Section		Requirement	Definitions	Virginia - MedVirginia
	E.	Role of Local HIEs:		Virginia hasn't chosen the state HIO road. CEO is senior advisor to Office of Health IT
	E1	May include but not require creation of independent governance entities to oversee regional or local HIE. All HIEs would conform with statewide policies, standards and rules.		If someone is starting an HIO they view themselves as a good role model. They do have a "RHIO Lab" where they host a two day session giving forming RHIO's access to the staff for advising. Cost is \$10000 for a two day session.
	E2	RHIO participation will be required (required as regional governance entities)		
	E3	Local HIEs must be inclusive and non-discriminatory		
	F.	Technical Operations		
	F1	Separate governing structure from technical operations (potential for combination in latter stages)		Government has a statewide office of health IT. Reports to Secretary of Technology.
	F2	Governance and technical operations in single entity		Yes
	G.	Accountability Mechanisms		

Section		Requirement	Definitions	Virginia - MedVirginia
	G1	Direct oversight through contracts with incentives for adherence and penalties for non-adherence		
	G2	Direct oversight via legislation		
	H.	Board of Director Composition		5 member BOD which is the managing board, larger advisory board
	H1	Governor's Office		
	H2	State Medicaid Agencies		
	H3	State Department of Health		
	H4	State Healthcare and Hospital Association		yes they are on advisory board
	H5	State Medical Association		yes they are on advisory board
	H6	Other non-profits who are involved in the medical community		QIO
	H7	Government Agencies who may be a stakeholder		
	H8	Consumers		
	H9	Employers		Yes
	H10	Insurers		Yes
	H11	Health Care Providers		Yes
	H12	Pharmacy		
	H13	Clinical Laboratories		
	H14	Higher Education		
	H15	Quality Organizations		
	I.	Operational / Management Positions and Responsibilities		

Section		Requirement	Definitions	Virginia - MedVirginia
	I1	Positions		CEO - Michael Matthews, COO / CIO
	I1-1	Executive Director		PM
	I1-2	Staff		VP of Marketing and Business
	I1-3	2 program staff, controller, 2 adm assistants		Director of IT , Operations, Finance Director 30 - 40 people.
	I1-4	Privacy and Security Officer		Sunvenet - Central Virginia health network. Care Management Organization
	I2	Responsibilities		
	I2-1	Execute strategic, business and technical plans		
	I2-2	Coordinate day-to-day tasks and deliverables		
	I2-3	Establish contracts and other relationships with local/sectoral initiatives		
	I2-4	Provide industry knowledge		
	I2-5	Advise the Board		
	J.	Board Committees and Responsibilities		
	J1	Governance Board		
	J1-1	Maintain vision, strategy, and outcome metrics		
	J1-2	Build trust, buy-in and participation of major stakeholders statewide		
	J1-3	Assure equitable and ethical approaches		

Section		Requirement	Definitions	Virginia - MedVirginia
	J1-4	Develop high-level business and technical plans		
	J1-5	Approve statewide policies, standards, agreements		
	J1-6	Balance interests and resolve disputes		
	J1-7	Raise, receive, manage and distribute state, federal, private funds		
	J1-8	Prioritize and foster interoperability for statewide and sub-state initiatives		
	J1-9	Implement statewide projects and facilitate local/sector projects		
	J1-10	Identify and overcome obstacles		
	J1-11	Financial and legal accountability, compliance, risk management		
	J1-12	Educate and market		
	J1-13	Facilitate consumer input (Others in MCHIE document worth reviewing and making sure tie back to above)		
	J1-14	Determining compensation for staff		
	J2	Board Committees		

Section		Requirement	Definitions	Virginia - MedVirginia
	J2-1	Broadens stakeholder representation in governance body		
	J2-2	Provides content expertise in very specific areas		
	J2-3	Represents clinicians, consumers, employers and payers		
	J3	Suggested Committees:		
	J3-1	Steering Committee		
	J3-2	Privacy and Security (legal, S & P officers)		
	J3-4	Clinical		clinical review team - used early on.
	J3-5	Technical		
	J3-6	Standards		
	J3-7	Outreach and Education		
Strategy and Planning	IV.	Privacy and Security		HIPSC Participant - Privacy Policy in place
	A.	Registration		
	A1	Registration authority		MedVirginia checks credentials assigns login and password to the Solutions (Welllogic) system, legal agreements are signed by every individual user.
	A2	Trusted relationship (i.e. hospital)		
	B.	Authentication		Single sign on for hospitals - using Solution which is a subscription only service for providers. Single factor authentication.

Section		Requirement	Definitions	Virginia - MedVirginia
	B1	providers		Dedicated secure service, use of unique, alphanumeric user identifiers and passwords, auto logout after 15 minutes; inability to logon after three consecutive failed attempts; ability to immediately deactivate a user identifier and password if improper use is suspected.
	B2	consumers		
	B3	public health		
	B4	other institutions (educational)		
	B5	non licensed providers (if any exist in state)		
	B6	data authentication (in and out of HIO)		
	B7	system authentication (system accessing HIO)		
	C.	Identification		
	C1	Use of a master person index to provide provider and consumer information		Master Patient Index - 500K patients
	C2	public health		
	C3	other institutions (educational)		
	C4	non licensed providers (if any exist in state)		
	C5	data identification		
	C6	system identification		
	C7	Credentialing of health care providers		

Section		Requirement	Definitions	Virginia - MedVirginia
	D.	Audit		Solution provides audit capabilities and reports are reviewed monthly
	D1	what is audited		
	D2	who audits		
	D3	how often		
	D4	external audit requirements		
	D5	rules of enforcement		
	E.	Authorization		
	E1	providers authorized to see what data		
	E2	consumers authorized		
	E3	public health		
	E4	other institutions (educational)		
	E5	non licensed providers (if any exist in state)		
	E6	data authorization		
	E7	system authorization		
	F.	Access	Role Based using HL7 Standards	
	F1	Who can access what data		
	F2	Who can change, update data		
	F3	Sensitive specially protected health information - substance abuse, HIV/AIDS, genetic etc.		Patient electronic chart contains a symbol indicating Sensitive PHI. In a break the glass scenario the provider can get this information

Section		Requirement	Definitions	Virginia - MedVirginia
	G.	Consent Framework		Only what HIPAA mandates. They will develop the consent framework as they work on PHR. They did use consent in the NHIN implementations.
	G1	Opt In	*if patient opts out does the data still go to the HIO without allowing it to be viewed, changed etc.	
	G2	Opt Out	Recommend reviewing California consent models - very detailed based on use cases	
	G3	Notice only to consumer that their information in accessible via HIO		
	G4	Use of de-identified data		
	H.	Legal Agreements		
	H1	master participation agreement		
	H2	use agreement		Med Virginia has a use agreement where Provider agrees to only access for treatment purposes the patient who he has an established relationship with
	H3	business associate agreements		MedVirginia has a business associate agreement

Section		Requirement	Definitions	Virginia - MedVirginia
	I.	Policy and Procedures	Develop sound policy to manage authorization and access to electronic patient information in a consumer centric approach to health information exchange (Privacy and Security Policies)	Policy on web site to cover all these areas
	I1	authentication		
	I2	audit		
	I3	authorization		
	I4	access		
	I5	consent		
	I6	enforcement - statewide that all must adhere to and may require legislation or ownership by AG office		
	I7	Break the glass		
	I8	Form relevant policy to enable improved community health status		
	I9	HRB		
	I10	Support for Policies Governing Patient Authorization for Data Sharing		
	J.	Legal Issues		
	J1	HIPAA considerations		
	J2	MDCMRA as may be required		
Strategy and Planning	V.	Stakeholder Outreach and Education	Ensure Transparency, convene all stakeholders, educate	
	A.	Part of statewide governing body		

Section		Requirement	Definitions	Virginia - MedVirginia
	B.	Documented process to educate:		
	B1	Consumers		
	B2	Under-served		
	B3	Providers		
	B4	Public Health		
	B5	Government Agencies		
	B6	Non-profits		
	C.	Understanding of market forces - patterns of care , who to connect with and political environment		
Detail Design	VI.	Care Delivery	Implementation Sequencing – Who has access first and Implementation Phasing - What information is available first	Applications hosted at Welllogic
	A.	Data Partners		
	A1	Hospitals		Bon Secours Richmond Health systems is the initial data supplier
	A2	Laboratories		
	A3	Clinics		
	A4	Pharmacies		
	A5	Individual Physician Practice		100 practices, 330 physicians; 1100 users
	A6	Nursing Homes		
	A7	State Health Agencies		
	A8	Quality Organization		
	A9	Medicare		
	A10	Medicaid		
	A11	Insurers		
	B.	Data Exchange Requirements		

Section		Requirement	Definitions	Virginia - MedVirginia
	B1	Use case analysis to determine actors, information they need, how to provide:		MedVirginia did analysis use cases to determine where to get the biggest win the fastest. Lab and Radiology first.
	B2	Clinical Decision Support Tools		Patient centric clinic data - Practice schedule with prioritized task list; order entry; clinical consults and referrals; cost effective option for emr
	B2-1	Medication history and reconciliation		
	B2-1-1	outpatient prescriptions		Prescription refill requests
	B2-1-2	pharmacy prescriptions		
	B2-1-3	e-prescribing and prescription histories		Welllogic has e-prescribing - but want to work as well as possible within physician practice - minimum practice management upset so waiting on interfaces.
	B2-1-4	Allergy and drug-drug interaction alerts		
	B2-1-5	Access to drug formularies for Medicaid and MD's two top private insurers		
	B2-2	Lab results		Diagnostic results
	B2-2-1	outpatient lab results		
	B2-2-2	Outpatient episodes		
	B3	Radiology Results		Yes
	B4	Radiology images		
	B5	Inpatient episodes		
	B6	Dictation / transcription		
	B7	Claims		
	B8	Pathology		
	B9	enrollment / eligibility		

Section		Requirement	Definitions	Virginia - MedVirginia
	B10	Cardiology		
	B11	GI		
	B12	Pulmonary		
	B13	Hospital discharge summary		
	B14	Emergency room reports		
	B15	Patient Reported Data		
	B16	Ambulatory electronic health record		
	B17	Disease Management Tools		
	B18	Wellness and prevention support based on national proactive guidelines - disease management		
	B19	Medical Alerts		
	B20	Demographics		
	C.	Application Functionality		Athena Health; Surescripts; Wellogic; Solution, IBM
	C1	Evaluate the following applications based on use case analysis:		
	C1-1	clinical messaging		Provider by Solution - message those providers in the network more than 1m per month
	C1-2	Continuity of care records (CCD)		
	C1-3	Longitudinal health records		
	C1-4	Elements of Shared Health Record		
	C1-5	Insurance Eligibility		
	C1-6	Functionality to Support Access to Data for Research		

Section		Requirement	Definitions	Virginia - MedVirginia
	C1-7	Support for External Information Requests		
	C1-8	Master person index		Master Patient Index
	C1-9	Record Locator Service		
	C1-10	Health Record Banking		
	C1-11	Auditing		
	C1-12	Security Applications		
	D.	System Architecture		Shared Repository
	D1	Plan for interfaces of data from data providers		Interface to emr systems
	D2	Push / Pull		
	D3	Central Repository vs. Federated Model		Central repository - viewer only no patient viewing feed in to PHR at a later date
	D4	Record Locator - Edge Servers		
	D5	Hybrid Model		
	D6	MPI		Yes have Master Provider and Master patient index.
	D7	HRB with opt-in		They are looking at PHR
	D8	Web-based application (portal)		Yes
	E.	Reporting		
	F.	Standards		Wellogic uses the national standards; always evolving and changing
	F1	Standards for Message and Document Formats (HL7)		Using HL7
	F2	Standards for Clinical Terminology		

Section		Requirement	Definitions	Virginia - MedVirginia
	F3	Provide and implement CCHIT certified EMRs for selected physicians as determined by XXXXX with options including: EMR license with physician storing in office; license with storage at hospital or health bank; license with storage at vendor; ASP model		
	F4	HITSP-endorsed IHE approach appropriate for supporting distributed data or HRB		
	F5	ASTM Standards		
	F6	NIST e-authentication		
	F7	IHE		
Implementation	VII.	Project Management	Method for ensuring smooth planning and implementation	
	A.	Team Selection		PM is in house
	B.	Detail Schedule		PM is in house
	C.	Task development		PM is in house
	D.	Hardware infrastructure		PM is in house
	E.	Software Solution Deployment		PM is in house
	F.	Interface analysis		PM is in house
	G.	Interface Development		PM is in house
	H.	Agreement negotiation		PM is in house
	I.	Solution Testing		PM is in house
Maintenance	VIII.	Operations processes	Support functions	

Section		Requirement	Definitions	Virginia - MedVirginia
	A.	Staffing		Currently have hosting at Wellogic. Plan to move database and support in house and continue to have Wellogic work on the application.
	B.	Support Services		